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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/647,884	10/06/2000	Richard J. Titmuss	36-1381	5841

7590 08/28/2003
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EXAMINER

MASTRACCI, DARYL R

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 08/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/647,884

Applicant(s)

TITMUSS ET AL.

Examiner

Daryl R Mastracci

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 1-26 are pending in this Office Action.

Information Disclosure Statement

The information disclosure statement filed in Paper No. 4 has been considered.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

The disclosure is objected to because of the following informalities: Cited references Zhang et al., EP-0718784, WO94/30023, WO93/01665, PCT/GB96/00252, PCT/GB97/00890, PCT/GB98/01056, and "Knowledge and Location" were not filed with the application. Applicant must send copies of all cited references.

The disclosure is objected to because of the following informalities: Numbered lines in the specification are confusing and inappropriate. Appropriate correction is required.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.

- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Reference numbers T6-T9 are not shown in Figure 1. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Reference numbers 116A,B in Fig. 4B, 120E,G in Fig. 6B, 300 in Fig. 8, and 600, 604,

606 in Fig. 12. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "said first nodes" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "said data access nodes" in line 14. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "said data access nodes" in lines 6. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "said data access nodes" in lines 8. The claim is rejected as being vague and indefinite because it is unclear which nodes "said data access nodes" refer to.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4-10, 16-19, 21-26 are rejected under 35 U.S.C. 102(b) as being anticipated by International Publication No. WO 96/07110 issued to Mannings et al. ("Mannings").

With respect to claim 1, Mannings teaches a method of storing and/or retrieving location-based information (page 3, lines 15- page 4, line 25), the method comprising: storing indexing data defining a plurality of indexing nodes respectively representing different ones of a plurality of first localities in relation to which information storage is accessible (Fig. 1; page 3, lines 15- page 4, line 25; page 6, lines 20-24; page 16, lines 19-24); and selecting ones of said first nodes to represent second localities for which information is to be stored and/or retrieved (page 6, lines 20-24; page 16, lines 19-24) such that: said first and second localities bear a predetermined locational relationship (Fig. 3, 6; page 5, lines 8-12; page 16, lines 19-24); and said first and second localities bear a predetermined relationship in size (Fig. 3, 6; page 5, lines 8-27; page 16, lines 19-24), characterized by the step of distributing said indexing nodes amongst a distributed network of data storage devices accessible simultaneously for users at a plurality of remote user terminals (Fig. 1, 6; page 3, line 15- page 4, line 25).

With respect to claim 2, Mannings teaches a method according to claim 1, wherein said first localities are selected such that said first and second localities share at least one geographical location (Fig. 3; page 5, lines 8-27).

With respect to claim 4, Mannings teaches a method according to claim 1, wherein said data defines access nodes which include a node representing a relatively

large locality and one or more nodes representing one or more relatively small localities which overlap said relatively large locality (Fig. 3; page 5, lines 8-27).

With respect to claim 5, Mannings teaches a method according to claim 4, wherein a plurality of said nodes representing relatively small localities form divisions of said relatively large locality (page 5, lines 8-27).

With respect to claim 6, Mannings teaches a method of storing location-based information, the method comprising: defining a plurality of indexing nodes each of which is responsible for a predefined locality, said plurality of nodes including a higher level node responsible for a larger locality and lower level nodes responsible for smaller localities which overlap said larger locality (page 5, lines 8-27), indexing references to information source containing locality-specific information at said data access nodes, different information source references being indexed at said higher level node than at said lower level nodes (page 3, lines 15-30; page 5, lines 8-27); and transmitting said reference from said indexing nodes on request, characterized by the step of distributing said indexing nodes amongst a distributed network of data storage devices accessible simultaneously for users at a plurality of remote user terminals (Fig. 1, 6; page 3, line 15- page 4, line 25).

With respect to claim 7, Mannings teaches a method according to claim 6, wherein at least one information source reference is commonly indexed at said higher level node and said lower level nodes (page 5, lines 8-27).

With respect to claim 8, Mannings teaches a method of storing location-based information, the method comprising: defining a plurality of indexing nodes each of which

are responsible for a predefined locality (Fig. 1, 6; page 3, lines 15- page 4, line 24; page 16, lines 19-24); indexing references to information sources containing locality-specific information at said data access nodes, one or more of such references being repeatedly indexed at different of said nodes (Fig. 1, 3; page 5, lines 8-33); and transmitting said references from said data access nodes on request, characterized by the step of distributing said indexing nodes amongst a distributed network of data storage devices accessible simultaneously for users at a plurality of remote user terminals (Fig. 1, 6; page 3, line 15- page 4, line 25).

With respect to claim 9, Mannings teaches a method according to claim 4, wherein said nodes are interlinked in a network structure (Fig. 1, 3).

With respect to claim 10, Mannings teaches a method according to claim 9, wherein said network structure is a hierarchical structure (Fig. 1,3; page 5, lines 8-27).

With respect to claim 16, Mannings teaches a method according to claim 4, comprising altering a distribution of said nodes amongst said data storage devices (page 5, line 28- page 6, line 3).

With respect to claim 17, Mannings teaches an apparatus for storing location-based information in accordance with the method of claim 1 (Fig. 1; page 4, lines 17-25; page 5, lines 28-33; page 6, lines 20-22).

With respect to claim 18, Mannings teaches a method of retrieving information for presentation to a user, the method comprising: defining a locality of interest to the user in dependence on both a location of the user and a speed of travel of the user (page 3, line 15- page 4, line 25; page 17, lines 26-29); and selecting indexing nodes from which

locality-specific information may be retrieved, on the basis of the defined locality of interest (Fig. 3, 6; page 5, lines 8-27; page 6, lines 20-24; page 16, lines 19-24), characterized by the step of distributing said indexing nodes amongst a distributed network of data storage devices accessible simultaneously for users at a plurality of remote user terminals (Fig. 1; page 3, line 15- page 4, line 25).

With respect to claim 19, Mannings teaches a method according to claim 18, wherein the extent of the locality of interest of the user is altered in dependence on the speed of travel (page 17, lines 26-29).

With respect to claim 21, Mannings teaches a method according to claim 18, wherein the locality of interest is altered in dependence on the direction of travel of the user (Fig. 3, 4, 6; page 16, line 19- page 18, line 8).

With respect to claim 22, Mannings teaches a method according to claim 18, comprising deriving parameters relating to the travel of the user from a positioning signal receiver traveling with the user (page 11, lines 7-21; page 15, lines 15-20; page 18, lines 2-8).

With respect to claim 23, Mannings teaches a method according to claim 18, comprising performing said selection in an apparatus for storing location-based information using a method of storing and/or retrieving location-based information (page 3, lines 15- page 4, line 25), the method comprising: storing, in a distributed network of data storage devices accessible simultaneously from a plurality of remote user terminals, data defining a plurality of first localities in relation to which information storage is accessible (Fig. 1; page 3, lines 15- page 4, line 25; page 6, lines 20-24;

page 16, lines 19-24); and selecting ones of said first localities to represent second localities for which information is to be stored and/or retrieved (page 6, lines 20-24; page 16, lines 19-24) such that: said first and second localities bear a predetermined locational relationship (Fig. 3, 6; page 5, lines 8-12; page 16, lines 19-24); and said first and second localities bearing a predetermined relationship in size (Fig. 3, 6; page 5, lines 8-27; page 16, lines 19-24) characterized by the step of distributing said indexing nodes amongst a distributed network of data storage devices accessible simultaneously for users at a plurality of remote user terminals (Fig. 1, 6; page 3, line 15- page 4, line 25).

With respect to claim 24, Mannings teaches a method according to claim 1, wherein said network of data storage devices comprises a plurality of servers interconnected by data links and forming a distributed processing environment (Fig. 1; page 8, lines 19-20).

With respect to claim 25, Mannings teaches an apparatus for storing location-based information, said apparatus comprising means for storing indexing data defining indexing nodes which are referentially interlinked, each said indexing node being provisioned with a locality for which it is responsible (Fig. 1; page 3, lines 15- page 4, line 25; page 6, lines 20-24; page 16, lines 19-24), and means for comparing the size of an input locality in relation to which information storage is to be accessed and a locality for which a said indexing node is responsible (Fig. 1, 3, 6; page 5, lines 8-27; page 16, lines 19-24), characterized by the step of distributing said indexing nodes

amongst a distributed network of data storage devices accessible simultaneously for users at a plurality of remote user terminals (Fig. 1, 6; page 3, line 15- page 4, line 25).

With respect to claim 26, Mannings teaches an apparatus according to claim 25, wherein said apparatus is reconfigurable by the addition of, or the removal of, one or more of said indexing nodes, so as to transfer responsibility from or to one or more other nodes with localities of responsibility sharing at least one geographical location (page 5, line 28- page 6, line 3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 11-15, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over International Publication No. WO 96/07110 issued to Mannings et al. ("Mannings").

With respect to claim 3, Mannings teaches a method according to claim 1, but does not explicitly state wherein said first localities are selected such that said first and second localities are similar in size. It would have been obvious to a person of ordinary skill in the art at the time of the invention that the claimed first and second localities have similar sizes. One of ordinary skill in the art would recognize that the first locality to be used is selected based on the second locality, therefore both localities being in the same/similar location and having similar size (page 5, lines 21-23).

With respect to claim 11, Mannings teaches a method according to claim 10, but does not explicitly state wherein said nodes are interlinked in parent/child relationships. It would have been obvious to a person of ordinary skill in the art at the time of the invention that a parent/child relationship is a hierarchical relationship, and is therefore taught by Mannings (page 5, lines 8-27). One of ordinary skill in the art would recognize that the overlay areas, GPS satellite navigation, and the cellular telephone networks taught by Manning are hierarchical networks.

With respect to claim 12, Mannings teaches a method according to claim 10, but does not explicitly state wherein said nodes are interlinked in sibling relationships. It would have been obvious to a person of ordinary skill in the art at the time of the invention that a sibling relationship is the equivalent of a network of cellular telephone towers/cells, or any other distributed network with distributed nodes/cells, and is therefore taught by Mannings (Fig. 1, 6; page 16, lines 19-24).

With respect to claim 13, Mannings teaches a method according to claim 10, but does not explicitly state wherein said nodes are interlinked in uncle/nephew relationships. It would have been obvious to a person of ordinary skill in the art at the time of the invention that an uncle/nephew relationship is a hierarchical relationship, and is therefore taught by Mannings (page 5, lines 8-27). One of ordinary skill in the art would recognize that the overlay areas, GPS satellite navigation, and the cellular telephone networks taught by Manning are hierarchical networks.

With respect to claim 14, Mannings teaches a method according to claim 10, but does not explicitly state wherein said nodes are interlinked in cousin/cousin

relationships. It would have been obvious to a person of ordinary skill in the art at the time of the invention that a cousin/cousin relationship is the equivalent of a network of cellular telephone towers/cells, or any other distributed network with distributed nodes/cells, and is therefore taught by Mannings (Fig. 1, 6; page 16, lines 19-24).

With respect to claim 15, Mannings teaches a method according to claim 11, wherein said interlinking comprises a node holding a reference whereby the related node may be accessed (page 5, lines 8-27). It would have been obvious to a person of ordinary skill in the art at the time of the invention that this is also the equivalent of a hierarchical relationship in a distributed network.

With respect to claim 20, Mannings teaches a method according to claim 19, but does not explicitly state wherein the extent of the locality of interest increases with the speed of travel. It would have been obvious to a person of ordinary skill in the art at the time of the invention that the faster the user or mobile unit is traveling, the greater the extent of the locality of interest. One of ordinary skill in the art would recognize that the user or mobile unit would move into different nodes/cells/zones etc. quicker at faster speeds, therefore causing a quicker increase in the extent of the locality of interest. This is important in the updating of location-specific information to a traveling user requesting the location-specific information.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,049,711 issued to Ben-Yehzekel et al.

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U.S. Patent No. 6,157,841 issued to Bolduc et al.

U.S. Patent No. 6,108,533 issued to Brohoff

Contact Information

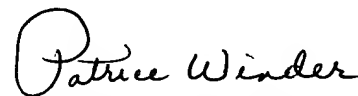
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daryl R Mastracci whose telephone number is (703) 305-0325. The examiner can normally be reached on Monday-Friday (8-5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T Alam can be reached on (703) 308-6662. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



drm
August 18, 2003



PATRICE WINDER
PRIMARY EXAMINER